

| Ref # | Hits | Search Query | DBs | Default Operator | Plurals | Time Stamp |
|-------|-------|--|----------------|------------------|---------|------------------|
| S1 | 290 | depolymeriz\$ and (electron adj beam) | USPAT; DERWENT | OR | ON | 2003/09/28 16:38 |
| S2 | 32 | polysaccharides and (depolymeriz\$ and (electron adj beam)) | USPAT; DERWENT | OR | ON | 2003/09/28 16:38 |
| S3 | 1902 | galactomannan | USPAT; DERWENT | OR | ON | 2003/09/28 16:31 |
| S4 | 14562 | xanthan | USPAT; DERWENT | OR | ON | 2003/09/28 16:31 |
| S5 | 3 | (polysaccharides and (depolymeriz\$ and (electron adj beam))) and (galactomannan/xanthan) | USPAT; DERWENT | OR | ON | 2003/09/28 16:31 |
| S6 | 3 | (depolymeriz\$ and (electron adj beam)) and (galactomannan xanthan) | USPAT; DERWENT | OR | ON | 2003/09/28 16:31 |
| S7 | 174 | depolymeriz\$ near6 (polysaccharide or galactomannan or xanthan) | USPAT; DERWENT | OR | ON | 2003/09/28 16:32 |
| S8 | 0 | (depolymeriz\$ near6 (polysaccharide or galactomannan or xanthan)) and (electron adj beam) | USPAT; DERWENT | OR | ON | 2003/09/28 16:33 |
| S9 | 17 | (depolymeriz\$ near6 (polysaccharide or galactomannan or xanthan)) and radiation | USPAT; DERWENT | OR | ON | 2003/09/28 16:37 |
| S10 | 13 | oil adj well adj fracturing adj (compound or agent or component or composition) | USPAT; DERWENT | OR | ON | 2003/09/28 16:38 |
| S11 | 47654 | polysaccharides | USPAT; DERWENT | OR | ON | 2003/09/28 16:38 |
| S12 | 11 | (oil adj well adj fracturing adj (compound or agent or component or composition)) and (polysaccharides galactomannan xanthan) | USPAT; DERWENT | OR | ON | 2003/09/28 16:38 |
| S13 | 0 | depolymeriz\$ and ((oil adj well adj fracturing adj (compound or agent or component or composition)) and (polysaccharides galactomannan xanthan)) | USPAT; DERWENT | OR | ON | 2003/09/28 16:38 |
| S14 | 0 | (oil adj well adj fracturing adj (compound or agent or component or composition)) and (depolymeriz\$ near6 (polysaccharide or galactomannan or xanthan)) | USPAT; DERWENT | OR | ON | 2003/09/28 16:38 |
| S15 | 324 | depolymeriz\$ and (electron adj beam) | USPAT; DERWENT | OR | ON | 2005/05/31 09:59 |
| S16 | 39 | polysaccharides and (depolymeriz\$ and (electron adj beam)) | USPAT; DERWENT | OR | ON | 2005/05/31 09:59 |

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| S17 | 2159 | galactomannan | USPAT; DERWENT | OR | ON | 2005/05/31 09:59 |
| S18 | 16258 | xanthan | USPAT; DERWENT | OR | ON | 2005/05/31 09:59 |
| S19 | 4 | (polysaccharides and (depolymeriz\$ and (electron adj beam))) and (galactomannan xanthan) | USPAT; DERWENT | OR | ON | 2005/05/31 09:59 |
| S20 | 4 | (depolymeriz\$ and (electron adj beam)) and (galactomannan xanthan) | USPAT; DERWENT | OR | ON | 2005/05/31 09:59 |
| S21 | 190 | depolymeriz\$ near6 (polysaccharide or galactomannan or xanthan) | USPAT; DERWENT | OR | ON | 2005/05/31 09:59 |
| S22 | 2 | (depolymeriz\$ near6 (polysaccharide or galactomannan or xanthan)) and (electron adj beam) | USPAT; DERWENT | OR | ON | 2005/05/31 09:59 |
| S23 | 19 | (depolymeriz\$ near6 (polysaccharide or galactomannan or xanthan)) and radiation | USPAT; DERWENT | OR | ON | 2005/05/31 09:59 |
| S24 | 14 | oil adj well adj fracturing adj (compound or agent or component or composition) | USPAT; DERWENT | OR | ON | 2005/05/31 10:44 |
| S25 | 53894 | polysaccharides | USPAT; DERWENT | OR | ON | 2005/05/31 09:59 |
| S26 | 12 | (oil adj well adj fracturing adj (compound or agent or component or composition)) and (polysaccharides galactomannan xanthan) | USPAT; DERWENT | OR | ON | 2005/05/31 09:59 |
| S27 | 1 | depolymeriz\$ and ((oil adj well adj fracturing adj (compound or agent or component or composition)) and (polysaccharides galactomannan xanthan)) | USPAT; DERWENT | OR | ON | 2005/05/31 09:59 |
| S28 | 1 | (oil adj well adj fracturing adj (compound or agent or component or composition)) and (depolymeriz\$ near6 (polysaccharide or galactomannan or xanthan)) | USPAT; DERWENT | OR | ON | 2005/05/31 10:12 |
| S29 | 12 | (oil adj well adj fracturing adj (compound or agent or component or composition)) and ((polysaccharide or galactomannan or xanthan)) | USPAT; DERWENT | OR | ON | 2005/05/31 10:06 |
| S30 | 12 | S26 and S17 | USPAT; DERWENT | OR | ON | 2005/05/31 10:01 |
| S31 | 65431 | borate or titanante or zirconate | USPAT; DERWENT | OR | ON | 2005/05/31 10:02 |

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| S32 | 0 | S30 and S31 | USPAT; DERWENT | OR | ON | 2005/05/31 10:02 |
| S33 | 4 | S30 and crosslink\$ | USPAT; DERWENT | OR | ON | 2005/05/31 10:03 |
| S34 | 46852 | organometallic | US-PGPUB; USPAT; USOCR; DERWENT | ADJ | OFF | 2005/05/31 10:04 |
| S35 | 0 | S34 and S30 | US-PGPUB; USPAT; USOCR; DERWENT | ADJ | OFF | 2005/05/31 10:04 |
| S36 | 742 | (molecular adj weight) near dalton | US-PGPUB; USPAT; USOCR; DERWENT | ADJ | OFF | 2005/05/31 10:05 |
| S37 | 0 | S36 near (S25 or S17 or S18) | US-PGPUB; USPAT; USOCR; DERWENT | ADJ | OFF | 2005/05/31 10:06 |
| S38 | 3 | S36 with (S25 or S17 or S18) | US-PGPUB; USPAT; USOCR; DERWENT | ADJ | OFF | 2005/05/31 10:08 |
| S39 | 0 | (S29 or S30) and S36 | US-PGPUB; USPAT; USOCR; DERWENT | ADJ | OFF | 2005/05/31 10:06 |
| S40 | 19384 | guar adj gum | US-PGPUB; USPAT; USOCR; DERWENT | ADJ | OFF | 2005/05/31 10:08 |
| S41 | 50 | guar adj splits | US-PGPUB; USPAT; USOCR; DERWENT | ADJ | OFF | 2005/05/31 10:08 |
| S42 | 632 | guar adj hydroxypropyl | US-PGPUB; USPAT; USOCR; DERWENT | ADJ | OFF | 2005/05/31 10:08 |
| S43 | 141 | guar adj cationic | US-PGPUB; USPAT; USOCR; DERWENT | ADJ | OFF | 2005/05/31 10:08 |
| S44 | 926 | guar adj locust adj bean | US-PGPUB; USPAT; USOCR; DERWENT | ADJ | OFF | 2005/05/31 10:08 |

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| S45 | 541 | tara adj gum | US-PGPUB; USPAT; USOCR; DERWENT | ADJ | OFF | 2005/05/31 10:08 |
| S46 | 355 | carboxymethyl adj guar | US-PGPUB; USPAT; USOCR; DERWENT | ADJ | OFF | 2005/05/31 10:09 |
| S47 | 217 | carboxymethylhydroxypropyl adj guar | US-PGPUB; USPAT; USOCR; DERWENT | ADJ | OFF | 2005/05/31 10:09 |
| S48 | 6 | cationic adj hydroxypropyl adj guar | US-PGPUB; USPAT; USOCR; DERWENT | ADJ | OFF | 2005/05/31 10:09 |
| S49 | 29 | carboxyalkyl adj guar | US-PGPUB; USPAT; USOCR; DERWENT | ADJ | OFF | 2005/05/31 10:09 |
| S50 | 20291 | S40 S41 S42 S43 S44 S45 S47 S47 S48 S49 | US-PGPUB; USPAT; USOCR; DERWENT | OR | OFF | 2005/05/31 10:10 |
| S51 | 20 | S50 and S15 | US-PGPUB; USPAT; USOCR; DERWENT | OR | OFF | 2005/05/31 10:10 |
| S52 | 6 | S50 same depolymerize | US-PGPUB; USPAT; USOCR; DERWENT | OR | OFF | 2005/05/31 10:21 |
| S53 | 0 | S52 same (electron adj beam) | US-PGPUB; USPAT; USOCR; DERWENT | OR | OFF | 2005/05/31 10:11 |
| S54 | 14 | S50 and S24 | US-PGPUB; USPAT; USOCR; DERWENT | ADJ | OFF | 2005/05/31 10:15 |
| S55 | 0 | S54 and S36 | US-PGPUB; USPAT; USOCR; DERWENT | ADJ | OFF | 2005/05/31 10:12 |
| S56 | 0 | S50 same S36 | US-PGPUB; USPAT; USOCR; DERWENT | ADJ | OFF | 2005/05/31 10:15 |

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| S57 | 1644 | S50 same molecular weight | US-PGPUB; USPAT; USOCR; DERWENT | ADJ | OFF | 2005/05/31 10:45 |
| S58 | 4 | S57 same dalton | US-PGPUB; USPAT; USOCR; DERWENT | ADJ | OFF | 2005/05/31 10:15 |
| S59 | 11 | S57 and S24 | US-PGPUB; USPAT; USOCR; DERWENT | ADJ | OFF | 2005/05/31 10:17 |
| S60 | 5 | (("4057509") or ("4031305")).PN | US-PGPUB; USPAT; USOCR; DERWENT | OR | OFF | 2005/05/31 10:16 |
| S61 | 0 | S59 and S31 | US-PGPUB; USPAT; USOCR; DERWENT | ADJ | OFF | 2005/05/31 10:17 |
| S62 | 3 | S59 and crosslink\$ | US-PGPUB; USPAT; USOCR; DERWENT | ADJ | OFF | 2005/05/31 10:17 |
| S63 | 194 | 507/200 | US-PGPUB; USPAT; USOCR; DERWENT | ADJ | OFF | 2005/05/31 10:21 |
| S64 | 33 | 507/200.ccls. and S50 | US-PGPUB; USPAT; USOCR; DERWENT | ADJ | OFF | 2005/05/31 10:56 |
| S65 | 23 | S64 and molecular weight | US-PGPUB; USPAT; USOCR; DERWENT | ADJ | OFF | 2005/05/31 10:22 |
| S66 | 23 | S64 and crosslinking | US-PGPUB; USPAT; USOCR; DERWENT | ADJ | OFF | 2005/05/31 10:44 |
| S67 | 5 | S65 not S66 | US-PGPUB; USPAT; USOCR; DERWENT | ADJ | OFF | 2005/05/31 10:22 |
| S68 | 5 | S66 not S65 | US-PGPUB; USPAT; USOCR; DERWENT | ADJ | OFF | 2005/05/31 10:41 |

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| S69 | 2 | polydispersity with S50 | US-PGPUB; USPAT; USOCR; DERWENT | ADJ | OFF | 2005/05/31 10:42 |
| S70 | 124028 | (hydration or hydrated) | US-PGPUB; USPAT; USOCR; DERWENT | ADJ | OFF | 2005/05/31 10:42 |
| S71 | 383 | S70 with S50 | US-PGPUB; USPAT; USOCR; DERWENT | ADJ | OFF | 2005/05/31 10:42 |
| S72 | 1 | polydispersity with S71 | US-PGPUB; USPAT; USOCR; DERWENT | ADJ | OFF | 2005/05/31 10:43 |
| S73 | 1 | S71 and S24 | US-PGPUB; USPAT; USOCR; DERWENT | ADJ | OFF | 2005/05/31 10:43 |
| S74 | 2370 | (oil with fracturing) | USPAT; DERWENT | OR | ON | 2005/05/31 10:44 |
| S75 | 27 | S74 and S71 | USPAT; DERWENT | OR | ON | 2005/05/31 10:44 |
| S76 | 16 | S75 and crosslinking | US-PGPUB; USPAT; USOCR; DERWENT | ADJ | OFF | 2005/05/31 10:45 |
| S77 | 7 | S76 and S31 | US-PGPUB; USPAT; USOCR; DERWENT | ADJ | OFF | 2005/05/31 10:45 |
| S78 | 6 | S77 and proppant | US-PGPUB; USPAT; USOCR; DERWENT | ADJ | OFF | 2005/05/31 10:45 |
| S79 | 3 | S78 and molecular weight | US-PGPUB; USPAT; USOCR; DERWENT | ADJ | OFF | 2005/05/31 10:45 |
| S80 | 33 | 507/200.ccls. and S50 | US-PGPUB; USPAT; USOCR; DERWENT | ADJ | OFF | 2005/05/31 11:02 |
| S81 | 802 | S50 with (Molecular adj weight) | US-PGPUB; USPAT; USOCR; DERWENT | ADJ | OFF | 2005/05/31 10:59 |

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| S82 | 2 | 507/200.ccls. and S81 | US-PGPUB; USPAT; USOCR; DERWENT | ADJ | OFF | 2005/05/31 11:01 |
| S83 | 2 | S50 with polydispersity | US-PGPUB; USPAT; USOCR; DERWENT | ADJ | OFF | 2005/05/31 10:59 |
| S84 | 28 | S50 with depolymerized | US-PGPUB; USPAT; USOCR; DERWENT | ADJ | OFF | 2005/05/31 11:03 |
| S85 | 6 | S84 with (Molecular adj weight) | US-PGPUB; USPAT; USOCR; DERWENT | ADJ | OFF | 2005/05/31 10:59 |
| S86 | 1 | 507/200.ccls. and S84 | US-PGPUB; USPAT; USOCR; DERWENT | ADJ | OFF | 2005/05/31 11:01 |
| S87 | 2 | 507/200.ccls. and S81 | US-PGPUB; USPAT; USOCR; DERWENT | ADJ | OFF | 2005/05/31 11:02 |
| S88 | 0 | S50 with unpolymerized | US-PGPUB; USPAT; USOCR; DERWENT | ADJ | OFF | 2005/05/31 11:03 |
| S89 | 324 | depolymeriz\$ and (electron adj beam) | USPAT; DERWENT | OR | ON | 2005/06/01 13:20 |
| S90 | 39 | polysaccharides and (depolymeriz\$ and (electron adj beam)) | USPAT; DERWENT | OR | ON | 2005/06/01 13:16 |
| S91 | 2159 | galactomannan | USPAT; DERWENT | OR | ON | 2005/06/01 13:16 |
| S92 | 16258 | xanthan | USPAT; DERWENT | OR | ON | 2005/06/01 13:16 |
| S93 | 4 | (polysaccharides and (depolymeriz\$ and (electron adj beam))) and (galactomannan xanthan) | USPAT; DERWENT | OR | ON | 2005/06/01 13:16 |
| S94 | 4 | (depolymeriz\$ and (electron adj beam)) and (galactomannan xanthan) | USPAT; DERWENT | OR | ON | 2005/06/01 13:16 |
| S95 | 190 | depolymeriz\$ near6 (polysaccharide or galactomannan or xanthan) | USPAT; DERWENT | OR | ON | 2005/06/01 13:16 |
| S96 | 2 | (depolymeriz\$ near6 (polysaccharide or galactomannan or xanthan)) and (electron adj beam) | USPAT; DERWENT | OR | ON | 2005/06/01 13:16 |

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| S97 | 19 | (depolymeriz\$ near6 (polysaccharide or galactomannan or xanthan)) and radiation | USPAT; DERWENT | OR | ON | 2005/06/01 13:16 |
| S98 | 14 | oil adj well adj fracturing adj (compound or agent or component or composition) | USPAT; DERWENT | OR | ON | 2005/06/01 13:16 |
| S99 | 53894 | polysaccharides | USPAT; DERWENT | OR | ON | 2005/06/01 13:16 |
| S100 | 12 | (oil adj well adj fracturing adj (compound or agent or component or composition)) and (polysaccharides galactomannan xanthan) | USPAT; DERWENT | OR | ON | 2005/06/01 13:16 |
| S101 | 1 | depolymeriz\$ and ((oil adj well adj fracturing adj (compound or agent or component or composition)) and (polysaccharides galactomannan xanthan)) | USPAT; DERWENT | OR | ON | 2005/06/01 13:16 |
| S102 | 1 | (oil adj well adj fracturing adj (compound or agent or component or composition)) and (depolymeriz\$ near6 (polysaccharide or galactomannan or xanthan)) | USPAT; DERWENT | OR | ON | 2005/06/01 13:16 |
| S103 | 324 | depolymeriz\$ and (electron adj beam) | USPAT; DERWENT | OR | ON | 2005/06/01 13:16 |
| S104 | 39 | polysaccharides and (depolymeriz\$ and (electron adj beam)) | USPAT; DERWENT | OR | ON | 2005/06/01 13:16 |
| S105 | 2159 | galactomannan | USPAT; DERWENT | OR | ON | 2005/06/01 13:16 |
| S106 | 16258 | xanthan | USPAT; DERWENT | OR | ON | 2005/06/01 13:16 |
| S107 | 4 | (polysaccharides and (depolymeriz\$ and (electron adj beam))) and (galactomannan xanthan) | USPAT; DERWENT | OR | ON | 2005/06/01 13:16 |
| S108 | 190 | depolymeriz\$ near6 (polysaccharide or galactomannan or xanthan) | USPAT; DERWENT | OR | ON | 2005/06/01 13:16 |
| S109 | 2 | (depolymeriz\$ near6 (polysaccharide or galactomannan or xanthan)) and (electron adj beam) | USPAT; DERWENT | OR | ON | 2005/06/01 13:16 |
| S110 | 14 | oil adj well adj fracturing adj (compound or agent or component or composition) | USPAT; DERWENT | OR | ON | 2005/06/01 13:18 |
| S111 | 53894 | polysaccharides | USPAT; DERWENT | OR | ON | 2005/06/01 13:16 |

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| S11 2 | 1 | depolymeriz\$ and ((oil adj well adj fracturing adj (compound or agent or component or composition)) and (polysaccharides galactomannan xanthan)) | USPAT; DERWENT | OR | ON | 2005/06/01 13:16 |
| S11 3 | 1 | (oil adj well adj fracturing adj (compound or agent or component or composition)) and (depolymeriz\$ near6 (polysaccharide or galactomannan or xanthan)) | USPAT; DERWENT | OR | ON | 2005/06/01 13:16 |
| S11 4 | 4 | (depolymeriz\$ and (electron adj beam)) and (galactomannan xanthan) | USPAT; DERWENT | OR | ON | 2005/06/01 13:16 |
| S11 5 | 19 | (depolymeriz\$ near6 (polysaccharide or galactomannan or xanthan)) and radiation | USPAT; DERWENT | OR | ON | 2005/06/01 13:16 |
| S11 6 | 12 | (oil adj well adj fracturing adj (compound or agent or component or composition)) and (polysaccharides galactomannan xanthan) | USPAT; DERWENT | OR | ON | 2005/06/01 13:16 |
| S11 7 | 12 | (oil adj well adj fracturing adj (compound or agent or component or composition)) and ((polysaccharide or galactomannan or xanthan)) | USPAT; DERWENT | OR | ON | 2005/06/01 13:16 |
| S11 8 | 12 | S116 and S105 | USPAT; DERWENT | OR | ON | 2005/06/01 13:16 |
| S11 9 | 65431 | borate or titanante or zirconate | USPAT; DERWENT | OR | ON | 2005/06/01 13:16 |
| S12 0 | 0 | S118 and S119 | USPAT; DERWENT | OR | ON | 2005/06/01 13:16 |
| S12 1 | 4 | S118 and crosslink\$ | USPAT; DERWENT | OR | ON | 2005/06/01 13:16 |
| S12 2 | 46852 | organometallic | US-PGPUB; USPAT; USOCR; DERWENT | ADJ | OFF | 2005/06/01 13:16 |
| S12 3 | 0 | S122 and S118 | US-PGPUB; USPAT; USOCR; DERWENT | ADJ | OFF | 2005/06/01 13:16 |
| S12 4 | 742 | (molecular adj weight) near dalton | US-PGPUB; USPAT; USOCR; DERWENT | ADJ | OFF | 2005/06/01 13:16 |
| S12 5 | 0 | S124 near (S111 or S105 or S106) | US-PGPUB; USPAT; USOCR; DERWENT | ADJ | OFF | 2005/06/01 13:16 |

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| S12 6 | 0 | (S117 or S118) and S124 | US-PGPUB; USPAT; USOCR; DERWENT | ADJ | OFF | 2005/06/01 13:16 |
| S12 7 | 3 | S124 with (S111 or S105 or S106) | US-PGPUB; USPAT; USOCR; DERWENT | ADJ | OFF | 2005/06/01 13:16 |
| S12 8 | 19384 | guar adj gum | US-PGPUB; USPAT; USOCR; DERWENT | ADJ | OFF | 2005/06/01 13:16 |
| S12 9 | 50 | guar adj splits | US-PGPUB; USPAT; USOCR; DERWENT | ADJ | OFF | 2005/06/01 13:16 |
| S13 0 | 632 | guar adj hydroxypropyl | US-PGPUB; USPAT; USOCR; DERWENT | ADJ | OFF | 2005/06/01 13:16 |
| S13 1 | 141 | guar adj cationic | US-PGPUB; USPAT; USOCR; DERWENT | ADJ | OFF | 2005/06/01 13:16 |
| S13 2 | 926 | guar adj locust adj bean | US-PGPUB; USPAT; USOCR; DERWENT | ADJ | OFF | 2005/06/01 13:16 |
| S13 3 | 541 | tara adj gum | US-PGPUB; USPAT; USOCR; DERWENT | ADJ | OFF | 2005/06/01 13:16 |
| S13 4 | 355 | carboxymethyl adj guar | US-PGPUB; USPAT; USOCR; DERWENT | ADJ | OFF | 2005/06/01 13:16 |
| S13 5 | 217 | carboxymethylhydroxypropyl adj guar | US-PGPUB; USPAT; USOCR; DERWENT | ADJ | OFF | 2005/06/01 13:16 |
| S13 6 | 6 | cationic adj hydroxypropyl adj guar | US-PGPUB; USPAT; USOCR; DERWENT | ADJ | OFF | 2005/06/01 13:16 |
| S13 7 | 29 | carboxyalkyl adj guar | US-PGPUB; USPAT; USOCR; DERWENT | ADJ | OFF | 2005/06/01 13:16 |

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| S13 8 | 20291 | S128 S129 S130 S131 S132 S133 S135 S135 S136 S137 | US-PGPUB; USPAT; USOCR; DERWENT | OR | OFF | 2005/06/01 13:16 |
| S13 9 | 20 | S138 and S103 | US-PGPUB; USPAT; USOCR; DERWENT | OR | OFF | 2005/06/01 13:16 |
| S14 0 | 6 | S138 same depolymerize | US-PGPUB; USPAT; USOCR; DERWENT | OR | OFF | 2005/06/01 13:16 |
| S14 1 | 0 | S140 same (electron adj beam) | US-PGPUB; USPAT; USOCR; DERWENT | OR | OFF | 2005/06/01 13:16 |
| S14 2 | 6 | S138 same depolymerize | US-PGPUB; USPAT; USOCR; DERWENT | OR | OFF | 2005/06/01 13:16 |
| S14 3 | 14 | S138 and S110 | US-PGPUB; USPAT; USOCR; DERWENT | ADJ | OFF | 2005/06/01 13:16 |
| S14 4 | 0 | S143 and S124 | US-PGPUB; USPAT; USOCR; DERWENT | ADJ | OFF | 2005/06/01 13:16 |
| S14 5 | 14 | S138 and S110 | US-PGPUB; USPAT; USOCR; DERWENT | ADJ | OFF | 2005/06/01 13:16 |
| S14 6 | 0 | S138 same S124 | US-PGPUB; USPAT; USOCR; DERWENT | ADJ | OFF | 2005/06/01 13:16 |
| S14 7 | 1644 | S138 same molecular weight | US-PGPUB; USPAT; USOCR; DERWENT | ADJ | OFF | 2005/06/01 13:16 |
| S14 8 | 4 | S147 same dalton | US-PGPUB; USPAT; USOCR; DERWENT | ADJ | OFF | 2005/06/01 13:16 |
| S14 9 | 11 | S147 and S110 | US-PGPUB; USPAT; USOCR; DERWENT | ADJ | OFF | 2005/06/01 13:16 |

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| S15 0 | 5 | (("4057509") or ("4031305")).PN. | US-PGPUB; USPAT; USOCR; DERWENT | OR | OFF | 2005/06/01 13:16 |
| S15 1 | 0 | S149 and S119 | US-PGPUB; USPAT; USOCR; DERWENT | ADJ | OFF | 2005/06/01 13:16 |
| S15 2 | 3 | S149 and crosslink\$ | US-PGPUB; USPAT; USOCR; DERWENT | ADJ | OFF | 2005/06/01 13:16 |
| S15 3 | 194 | 507/200 | US-PGPUB; USPAT; USOCR; DERWENT | ADJ | OFF | 2005/06/01 13:16 |
| S15 4 | 33 | 507/200.ccls. and S138 | US-PGPUB; USPAT; USOCR; DERWENT | ADJ | OFF | 2005/06/01 13:16 |
| S15 5 | 23 | S154 and molecular weight | US-PGPUB; USPAT; USOCR; DERWENT | ADJ | OFF | 2005/06/01 13:16 |
| S15 6 | 23 | S154 and crosslinking | US-PGPUB; USPAT; USOCR; DERWENT | ADJ | OFF | 2005/06/01 13:16 |
| S15 7 | 5 | S155 not S156 | US-PGPUB; USPAT; USOCR; DERWENT | ADJ | OFF | 2005/06/01 13:16 |
| S15 8 | 5 | S156 not S155 | US-PGPUB; USPAT; USOCR; DERWENT | ADJ | OFF | 2005/06/01 13:16 |
| S15 9 | 124028 | (hydration or hydrated) | US-PGPUB; USPAT; USOCR; DERWENT | ADJ | OFF | 2005/06/01 13:16 |
| S16 0 | 2 | polydispersity with S138 | US-PGPUB; USPAT; USOCR; DERWENT | ADJ | OFF | 2005/06/01 13:16 |
| S16 1 | 383 | S159 with S138 | US-PGPUB; USPAT; USOCR; DERWENT | ADJ | OFF | 2005/06/01 13:16 |

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| S16 2 | 1 | polydispersity with S161 | US-PGPUB; USPAT; USOCR; DERWENT | ADJ | OFF | 2005/06/01 13:16 |
| S16 3 | 1 | S161 and S110 | US-PGPUB; USPAT; USOCR; DERWENT | ADJ | OFF | 2005/06/01 13:16 |
| S16 4 | 2370 | (oil with fracturing) | USPAT; DERWENT | OR | ON | 2005/06/01 13:16 |
| S16 5 | 27 | S164 and S161 | USPAT; DERWENT | OR | ON | 2005/06/01 13:16 |
| S16 6 | 16 | S165 and crosslinking | US-PGPUB; USPAT; USOCR; DERWENT | ADJ | OFF | 2005/06/01 13:16 |
| S16 7 | 7 | S166 and S119 | US-PGPUB; USPAT; USOCR; DERWENT | ADJ | OFF | 2005/06/01 13:16 |
| S16 8 | 6 | S167 and proppant | US-PGPUB; USPAT; USOCR; DERWENT | ADJ | OFF | 2005/06/01 13:16 |
| S16 9 | 3 | S168 and molecular weight | US-PGPUB; USPAT; USOCR; DERWENT | ADJ | OFF | 2005/06/01 13:16 |
| S17 0 | 33 | 507/200.ccls. and S138 | US-PGPUB; USPAT; USOCR; DERWENT | ADJ | OFF | 2005/06/01 13:16 |
| S17 1 | 802 | S138 with (Molecular adj weight) | US-PGPUB; USPAT; USOCR; DERWENT | ADJ | OFF | 2005/06/01 13:16 |
| S17 2 | 2 | 507/200.ccls. and S171 | US-PGPUB; USPAT; USOCR; DERWENT | ADJ | OFF | 2005/06/01 13:16 |
| S17 3 | 2 | S138 with polydispersity | US-PGPUB; USPAT; USOCR; DERWENT | ADJ | OFF | 2005/06/01 13:16 |
| S17 4 | 28 | S138 with depolymerized | US-PGPUB; USPAT; USOCR; DERWENT | ADJ | OFF | 2005/06/01 13:16 |

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| S17 5 | 6 | S174 with (Molecular adj weight) | US-PGPUB; USPAT; USOCR; DERWENT | ADJ | OFF | 2005/06/01 13:16 |
| S17 6 | 1 | 507/200.ccls. and S174 | US-PGPUB; USPAT; USOCR; DERWENT | ADJ | OFF | 2005/06/01 13:16 |
| S17 7 | 2 | 507/200.ccls. and S171 | US-PGPUB; USPAT; USOCR; DERWENT | ADJ | OFF | 2005/06/01 13:16 |
| S17 8 | 0 | S138 with unpolymerized | US-PGPUB; USPAT; USOCR; DERWENT | ADJ | OFF | 2005/06/01 13:16 |
| S17 9 | 88 | (low adj molecular adj weight) with S138 | US-PGPUB; USPAT; USOCR; DERWENT | ADJ | OFF | 2005/06/01 13:17 |
| S18 0 | 260 | (fractur\$) with S138 | US-PGPUB; USPAT; USOCR; DERWENT | ADJ | OFF | 2005/06/01 13:18 |
| S18 1 | 345 | S179 or S180 | US-PGPUB; USPAT; USOCR; DERWENT | ADJ | OFF | 2005/06/01 13:18 |
| S18 2 | 66 | (oil near3 fracturing) and S181 | USPAT; DERWENT | OR | ON | 2005/06/01 13:20 |
| S18 3 | 0 | (oil near3 fracturing) and S179 | USPAT; DERWENT | OR | ON | 2005/06/01 13:20 |
| S18 4 | 36 | depolymeriz\$ same S138 | USPAT; DERWENT | OR | ON | 2005/06/01 13:20 |
| S18 5 | 2 | (oil near3 fracturing) and S184 | USPAT; DERWENT | OR | ON | 2005/06/01 13:20 |
| S18 6 | 13 | ("3202556" "3523048" "3740360" "3794115" "3940297" "4021355" "4466890" "4470915" "4488975" "4505826").PN. | US-PGPUB; USPAT; USOCR | ADJ | OFF | 2005/06/01 13:21 |
| S18 7 | 5 | S186 and (molecular adj weight) | US-PGPUB; USPAT; USOCR; DERWENT | ADJ | OFF | 2005/06/01 13:23 |
| S18 8 | 2 | S187 and S119 | US-PGPUB; USPAT; USOCR; DERWENT | ADJ | OFF | 2005/06/01 13:23 |

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| S18 9 | 7 | hydration and S186 | US-PGPUB; USPAT; USOCR; DERWENT | ADJ | OFF | 2005/06/01 13:23 |
| S19 0 | 2 | hydration and S188 | US-PGPUB; USPAT; USOCR; DERWENT | ADJ | OFF | 2005/06/01 13:24 |